

AMENDMENTS TO THE SPECIFICATION

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Please replace paragraph [0006], with the following new paragraph [0006]:

[0006] One aspect of the present invention relates to a siloxane-based resin that is prepared by hydrolyzing and condensing a silane-based monomer having a radial structure of Formula 1 and at least one monomer selected from the group consisting of the compounds of Formulas 2 to 4, in organic solvent in the presence of an acid or alkaline catalyst and water:

Formula 1

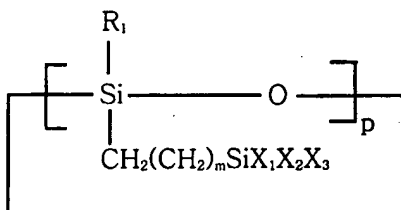


wherein,

k is an integer of 1-10; and

Y₁, Y₂ and Y₃ are independently a C₁-C₃ alkyl group, a C₁-C₁₀ alkoxy group, or a halogen atom, provided that at least one of them is hydrolysable,

Formula 2



wherein,

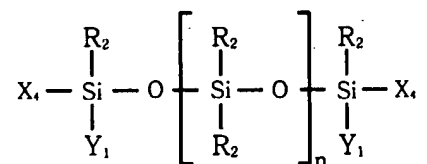
R₁ is a C₁-C₃ alkyl group, or a C₆-C₁₅ aryl group;

X₁, X₂ and X₃ are independently a hydrogen atom, a C₁-C₃ alkyl group, a C₁-C₁₀ alkoxy group, or a halogen atom, provided that at least one of them is hydrolyzable;

m is an integer of 0-10; and

p is an integer of 3-8,

Formula 3



wherein,

R₂ is a C₁-C₃ alkyl group, or a C₆-C₁₅ aryl group;

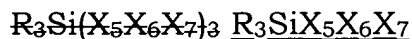
X₄ is a hydrogen atom, or a C₁-C₁₀ alkoxy group;

Y₁ is a hydrogen atom, a C₁-C₃ alkyl group or a C₁-C₁₀ alkoxy group;

and

n is an integer of 0-10, and

Formula 4



wherein,

R₃ is a C₁-C₃ alkyl group, or a C₆-C₁₅ aryl group;

X₅, X₆ and X₇ are independently a hydrogen atom, a C₁-C₃ alkyl group, a C₁-C₁₀ alkoxy group, or a halogen atom, provided that at least one of them is hydrolyzable.

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Please replace paragraph [0012], with the following new paragraph [0012]:

[0012] According to the present invention, the combined use of a porogen with the inventive siloxane-based resin may further lower the dielectric constant of the final insulating film down to 2.50 or less. The present invention is represented by:

Formula 1

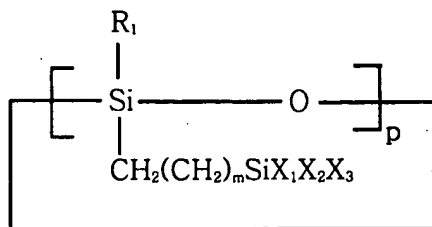


wherein,

k is an integer of 1-10; and

Y₁, Y₂ and Y₃ are independently a C₁-C₃ alkyl group, a C₁-C₁₀ alkoxy group, or a halogen atom, provided that at least one of them is hydrolyzable.

Formula 2



wherein,

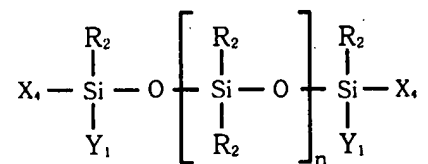
R₁ is a C₁-C₃ alkyl group, or a C₆-C₁₅ aryl group;

X₁, X₂ and X₃ are independently a hydrogen atom, a C₁-C₃ alkyl group, a C₁-C₁₀ alkoxy group, or a halogen atom, provided that at least one of them is hydrolyzable;

m is an integer of 0-10; and

p is an integer of 3-8.

Formula 3



wherein,

R₂ is a C₁-C₃ alkyl group, or a C₆-C₁₅ aryl group;

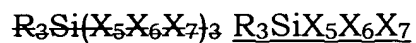
X₄ is a hydrogen atom, or a C₁-C₁₀ alkoxy group;

Y₁ is a hydrogen atom, a C₁-C₃ alkyl group or a C₁-C₁₀ alkoxy group;

and

n is an integer of 0-10, and

Formula 4



wherein,

R₃ is a C₁-C₃ alkyl group, or a C₆-C₁₅ aryl group;

X₅, X₆ and X₇ are independently a hydrogen atom, a C₁-C₃ alkyl group, a C₁-C₁₀ alkoxy group, or a halogen atom, provided that at least one of them is hydrolyzable.